

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
15 July 2004 (15.07.2004)

PCT

(10) International Publication Number  
**WO 2004/057957 A3**

(51) International Patent Classification<sup>7</sup>: **A01N 63/02**

(21) International Application Number:  
PCT/US2003/040089

(22) International Filing Date:  
15 December 2003 (15.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/433,893 16 December 2002 (16.12.2002) US

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(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:  
10 September 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD FOR INCREASING THE EFFICACY OF AGRICULTURAL CHEMICALS

(57) Abstract: The present invention is directed to increasing the efficacy of agricultural chemicals. This can be achieved by applying at least one agricultural chemical to a plant or plant seed under conditions effective for the agricultural chemical to perform its intended function and applying at least one hypersensitive response elicitor protein or polypeptide to the plant or plant seed under conditions effective to increase the efficacy of the agricultural chemical. Alternatively, the present invention relates to a method for increasing the efficacy of agricultural chemicals by applying an agricultural chemical to a transgenic plants or transgenic seeds transformed with nucleic acid molecule which encodes a hypersensitive response elicitor protein or polypeptide, wherein the agricultural chemical is applied under conditions effective for the agricultural chemical to perform its intended function but with increased efficacy.

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# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/40089

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A01N 63/02

US CL : 504/117, 118, 127, 128, 129; 514/2

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 504/117, 118, 127, 128, 129; 514/2

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
None

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
Please See Continuation Sheet

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 5,859,324 A (WEI et al) 12 January 1999. See columns 17, 19-20	1-4, 6-8, 15, 18, 48-58, 65, 68, 99-103 ----- 1-103
X --- Y	US 6,001,959 A (BAUER et al) 14 December 1999. See columns 4, 12-13.	1-4, 6-8, 15, 18, 48-58, 65, 68, 99-103 ----- 1-103
X --- Y	US 6,172,184 B1 (COLLMER et al) 09 January 2001. See columns 1, 2, 11-13.	1-4, 6-8, 15, 18, 48-58, 65, 68, 99-103 ----- 1-103

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

08 June 2004 (08.06.2004)

Date of mailing of the international search report

23 JUL 2004

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# INTERNATIONAL SEARCH REPORT

PCT/US03/40089

## Continuation of B. FIELDS SEARCHED Item 3:

WEST (USPAT, PGPUBS, DWPI, EPO, JPO): (hyper)sensitiv--, protein, (poly/oligo)peptide, erwinia, pseudomona-, xanthomona-, insecticid-, fungicid-, herbicid-, acaricid-, virusid-, nematocid-